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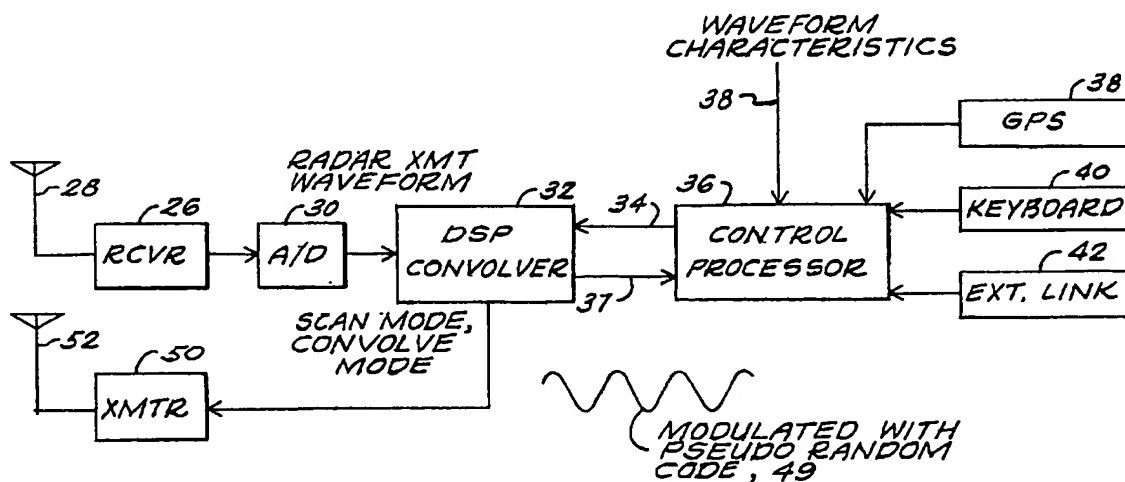
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(54) Title: DIGITAL RF TAG



(57) **Abstract:** An RF tag is provided to communicate with an interrogating source in which the tag has programmability and flexibility to uplink data to multiple platforms. As such the RF tag functions as a miniature programmable transceiver capable of communicating with a plurality of different platforms each having different waveform characteristics. With well-controlled spectral characteristics due to stored waveforms and the use of specialized direct digital up and down conversion techniques, data rates up to 256 kbps are achievable. The tag is thus capable of converting microwave signals directly to digital inputs, and the transmitter generates microwave signals directly from digital outputs. Flexible digital processing also allows a throughput of 900 BOPS when using field programmable gate arrays.

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